

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	Fi	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/830,232	(07/05/2001 ~	Erwan Launay	9320.127USWO	9320.127USWO 3294	
23552	7590	02/07/2006		EXAMINER		
MERCHAN	T & GO	ULD PC		AHN	, SAM K	
P.O. BOX 29	03					
MINNEAPOLIS, MN 55402-0903				ART UNIT	PAPER NUMBER	
	-				•	

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

			\mathcal{U}^{Λ}			
	Application No.	Applicant(s)				
Office Action Commence	09/830,232	LAUNAY ET AL.				
Office Action Summary	Examiner	Art Unit				
7. 10.000 0.175 1.11	Sam K. Ahn	2637				
The MAILING DATE of this communication ap Period for Reply	pears on the cover sheet with th	e correspondence addre	SS			
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING [- Extensions of time may be available under the provisions of 37 CFR 1, after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period. Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATI 136(a). In no event, however, may a reply be will apply and will expire SIX (6) MONTHS for the, cause the application to become ABANDO	ON. e timely filed rom the mailing date of this commit DNED (35 U.S.C. § 133).				
Status						
,	is action is non-final.	prosecution as to the mi	arite ic			
3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims	- , - ,					
4) ☑ Claim(s) 9-16 is/are pending in the applicatio 4a) Of the above claim(s) is/are withdres 5) ☐ Claim(s) is/are allowed. 6) ☑ Claim(s) 9-14 is/are rejected. 7) ☑ Claim(s) 15 and 16 is/are objected to. 8) ☐ Claim(s) are subject to restriction and/	awn from consideration.					
Application Papers						
9) The specification is objected to by the Examination The drawing(s) filed on <u>07 October 2004</u> is/ar Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examination is objected to by the Examination The specification The specificatio	e: a)⊠ accepted or b)□ objec e drawing(s) be held in abeyance. ction is required if the drawing(s) is	See 37 CFR 1.85(a). objected to: See 37 CFR				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0. Paper No(s)/Mail Date	4) Interview Summ Paper No(s)/Ma 5) Notice of Inform 6) Other:		52)			

Application/Control Number: 09/830,232

Art Unit: 2637

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/27/05 has been entered.

Claim Objections

2. Claims 9-16 are objected to because of the following informalities:

In claim 9, line 6, "means for combination" should be "means for combining", line 10, "element, and" should be "element, wherein said device further comprising:", line 12, "combination" should be "combining" and line 16, "corresponding path confidence" should be "corresponding confidence".

In claim 10, line 7, "combination" should be "combining", line 9, "of said path" should be "of said corresponding", line 9, "values;" should be "values, and", line 10, "of said path" should be "of said corresponding", line 11, "elements, and" should be "elements, wherein said device further comprising:" and line 16, "the confidence" should be "the corresponding confidence".

In claim 12, line 5, "combination" should be "combining".

In claim 14, line 5, "combination" should be "combining".

Art Unit: 2637

required.

In claim 15, line 1, "former" should "formed", line 4, "estimation of the transmission" should be "estimating of a transmission", line 6, "comprising" should be "said method comprising", line 7, "step delivering" should be "step of delivering", line 9, "said path confidence information" should be "said corresponding path confidence information element" and line 17, "decoding, supplied by said" should be "decoding said".

In claim 16, line 1, "former" should "formed", line 4, "estimation of the transmission" should be "estimating of a transmission", line 9, "said path confidence information" should be "said corresponding path confidence information element", line 14, "the confidence" should be "the corresponding confidence" and line 17, "decoding, supplied by said" should be "decoding said". Claims 11 and 13 directly depend on claim 9 or 10. Appropriate correction is

Claim Rejections - 35 USC § 112

3. Claims 9-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 9,10,12 and 14 the word "means" is preceded by the word(s) "weighted-input decoding" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function.

Art Unit: 2637

Furthermore, regarding claims 9 and 10, the word "means" is preceded by the word(s) "estimation" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function.

However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967). Claims 11 and 13 directly depend on claim 9 or 10.

Allowable Subject Matter

- 4. Claims 9-14 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, and claim objections, set forth in this Office action.
- 5. Claims 15 and 16 would be allowable if rewritten or amended to overcome the claim objections, set forth in this Office action.
- 6. The following is a statement of reasons for the indication of allowable subject matter: Present application discloses method and apparatus of receiving a multi-carrier signal wherein the receiver comprises plurality of channel estimation an adaptor receiving the output of each channel estimation and a decoder coupled to the adaptor. Closest prior arts, Fukumasa and Khayrallah teach in the same field of endeavor, all the limitations claimed. However, prior art, solely or combination, do not teach the recited computation of said adapted estimated value and said adapted confidence information element.

Art Unit: 2637

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Ahn whose telephone number is (571) 272-3044. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam K. Ahn 2/3/06

YOUNG T. TSE